AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (canceled).

2. (currently amended): A receiver comprising:

a variable gain controller for performing variable gain adjustment of detection data generated by detection of a received wave that is frequency-converted to an intermediate frequency signal to the detection data having a constant level via digital signal processing, and

a noise clamping section for performing noise clamping of the detection data having the constant level output from said variable gain controller via digital signal processing;

~~The receiver according to claim 1~~, wherein said variable gain controller comprises:

a digital low pass filter for integrating detection data to generate DC component data,

a digital divider for dividing predetermined first reference data to indicate a detection data level by the DC component data generated by said digital low pass filter, and

a digital multiplier for multiplying division data output from said digital divider via said division by the detection data to generate the detection data having a constant level.

3. (currently amended): A receiver comprising:

a variable gain controller for performing variable gain adjustment of detection data generated by detection of a received wave that is frequency-converted to an intermediate frequency signal to the detection data having a constant level via digital signal processing, and

a noise clamping section for performing noise clamping of the detection data having the constant level output from said variable gain controller via digital signal processing;

~~The receiver according to claim 1,~~ wherein said noise clamping section comprises:

a digital comparator for comparing predetermined second reference data to indicate a clamp level with the detection data having a constant level and outputting the comparison results, and

a selector circuit for outputting the detection data having a constant level when the detection data having a constant level is smaller than the second reference data, and outputting the second reference data when the detection data having a constant level is larger than the second reference data.

4. (previously presented): The receiver according to claim 2 , further comprising:

a digital multiplier for multiplying the first reference data by a predetermined scale factor so that the second reference data is generated; and

wherein said noise clamping section comprises a digital comparator for comparing predetermined second reference data to indicate a clamp level with the detection data having a constant level and outputting the comparison results, and a selector circuit for outputting the detection data having a constant level a when the detection data having a constant level is smaller

than the second reference data, and outputting the second reference data when the detection data having a constant level is larger than the second reference data.

5. (previously presented): The receiver of claim 3, wherein the data output from the selector circuit is signal wave data.

6. (canceled).

7. (canceled).

8. (currently amended): A receiver comprising:

a frequency converting circuit converting a received signal to an intermediate frequency signal;

a detection circuit generating a detection signal in an audio frequency band from said intermediate frequency signal;

an automatic gain controller circuit performing variable gain adjustment of said detection signal through digital signal processing thereby forming detection data having a constant level; and

a noise clamping circuit performing noise clamping of the constant level detection data through digital signal processing;

~~The receiver according to claim 6~~, wherein said automatic gain controller circuit comprises:

a digital low pass filter for integrating detection data to generate DC component data,

a digital dividing circuit for dividing predetermined first reference data to indicate a detection data level by the DC component data generated by said digital low pass filter, and

a digital multiplier circuit for multiplying division data output from said digital dividing circuit via said division by the detection data to generate the detection data having a constant level.

9. (currently amended): A receiver comprising:

a frequency converting circuit converting a received signal to an intermediate frequency signal;

a detection circuit generating a detection signal in an audio frequency band from said intermediate frequency signal;

an automatic gain controller circuit performing variable gain adjustment of said detection signal through digital signal processing thereby forming detection data having a constant level; and

a noise clamping circuit performing noise clamping of the constant level detection data through digital signal processing;

~~The receiver according to claim 6,~~ wherein said noise clamping circuit comprises:

a digital comparator for comparing a predetermined second reference data with the detection data having a constant level and outputting the comparison results, and

a selector circuit for selectively outputting the detection data having a constant level based on the comparison results of the digital comparator.